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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,531	02/22/2002	Lloyd Wass	1567-P	1059

7590

05/21/2004

John M. Vasuta  
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Hudson, OH 44236

EXAMINER
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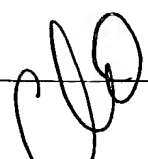
RIVELL, JOHN A

ART UNIT	PAPER NUMBER
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3753

DATE MAILED: 05/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/081,531	Applicant(s) WASS ET AL.	
	Examiner John Rivell	Art Unit 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 2/22/02 (application).
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Claims 1-14 are pending.

The drawings are objected to as set forth on the attached Draftsperson's Review PTO-948. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 are rejected under 35 U.S.C. §102 (b) as being anticipated by Buenik.

The patent to Buenik discloses "a pressure relief and topping valve for use in exhausting over-pressure in an inflatable device (a tire) as well as topping off or inflating the inflatable device, the valve comprising: a valve body (22) having a fluid passage therein with an internal shoulder (26); a first poppet (30) having a seal (33) seated therein and biased against the shoulder (26) by a first spring (35), the first poppet (30) and seal having an aperture therein (receiving rod 16); a second poppet (28) biased into the aperture by a second spring (37)" as recited.

Regarding claim 2, in Buenik, "the second poppet (28) is biased against the seal (33) in the aperture" as recited.

Regarding claim 3, in Buenik, "the seal (33) includes a first face (at the outer periphery of seal 22 and the downwardly facing surface within recess 31) that seats within the first poppet (30)" as recited.

Regarding claim 4, in Buenik, "the seal (33) includes a seating surface (at the upper surface cooperating with shoulder 26) for sealable seating against the internal shoulder (26) when the first poppet (30) is biased against the shoulder (26)" as recited.

Regarding claim 5, in Buenik, "the seal (33) includes a sealing shoulder (at the upper surface cooperating with the annuli 29 of valve 28) for sealable seating against the second poppet (28) when the second poppet (28) is biased into the aperture by the second spring (37)" as recited.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buenik in view of Bowen.

The patent to Buenik discloses, in addition to the recitations of claim 1 noted above, "a recessed seat (31) with a poppet aperture (through which rod 16 passes) extending therein extending through the first poppet (30).

Thus Buenik discloses all the claimed features with the exception of having "the first poppet further including a plurality of outward stops extending from the poppet and defining air flow passages therebetween.

The patent to Bowen discloses that it is known in the art to employ, on a bi-directional check valve device, a "first poppet (A, C) further including a plurality of outward stops (B) extending from the poppet and defining air flow passages therebetween" for the purpose of strictly guiding the poppet valve A in reciprocation within the passage in which the valve A reciprocates while permitting fluid flow across the valve A.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Buenik a plurality of "stops" radially extending from the periphery of valve 30, including fluid flow passages between the stops, for the purpose of strictly guiding the poppet valve 30 in reciprocation within the passage 11 in which the valve 30 reciprocates while permitting fluid flow across the valve 30 as recognized by Bowen.

Regarding claim 7, in Buenik, "the first spring (35) is positioned between the first poppet (30) and a first spring retainer (34) for biasing the first poppet (30) against the shoulder (26)" as recited.

Regarding claim 8, in Buenik, "the second poppet (28) includes a stem (16) extending to a head with a neck therebetween, where the poppet (28) seats within the poppet (30) aperture (receiving rod 16) and selectively against the seal (33)" as recited.

Claims 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buenik in view of Bowen as applied to claims 6-8 above, further in view of Hollowell.

The patent to Buenik, as modified by Bowen, discloses all the claimed features with the exception of having "the second spring... positioned between the first poppet and a second spring retainer for biasing the second poppet against the seal".

The patent to Hollowell discloses that it is known in the art to employ a "second spring" 23, biasing an overpressure valve 20 (relative to the tire) closed, in which the spring 23 "is positioned between the first poppet (at cup 17) and a second (independent) spring retainer (washer 24 and nuts 25) for biasing the second poppet (20) against the seal (at 19) for the purpose of, as compared to the construction of Buenik, reducing the overall length of the bi-directional check valve device thus reducing the space occupied by the device in its assembled position.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Buenik, as modified by Bowen, a second spring positioned between the first poppet (30) and a second, independent spring retainer for biasing the second poppet against the seal for the purpose of, as compared to the construction of Buenik, reducing the overall length of the bi-directional check valve device thus reducing the space occupied by the device in its assembled position as recognized by Hollowell.

Regarding claim 10, the combination of Buenik, Bowen and Hollowell discloses "a pressure relief and topping valve for use in exhausting over-pressure in an inflatable device (the tire of Buenik) as well as topping off or inflating the inflatable device, the valve comprising: a valve body (22, Buenik) having a fluid passage therein with an internal shoulder (26, Buenik); a first poppet (30, Buenik) having a recessed seat (31, Buenik) with a poppet aperture (receiving rod 16, Buenik) extending therein extending through the first poppet, the first poppet (30, Buenik) further including a plurality of outward stops (as taught at B, Bowen) extending from the poppet; a first spring retainer

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(34, Buenik) for holding the first poppet (30, Buenik) within the fluid passage; a first spring (37, Buenik) positioned between the first poppet (30, Buenik) and the first spring retainer (34, Buenik) for biasing the first poppet (30, Buenik) against the shoulder (26, Buenik); a seal (33, Buenik) having a seal aperture (so as to receive rod 16 therethrough, Buenik) therein aligned with the poppet aperture when the seal (33, Buenik) is seated in the recessed seat (31, Buenik) and selectively against the internal shoulder (26, Buenik); a second poppet (28, Buenik) having a stem (16, Buenik) extending to a head with a neck therebetween, where the poppet (28, Buenik) seats within the poppet aperture and selectively against the seal (33, Buenik); a second spring retainer 36, Buenik) for holding the second poppet (28, Buenik) within the fluid passage; and a second spring positioned between the first poppet and the second spring retainer for biasing the second poppet against the seal (as taught by Hollowell at spring 23 within the outer spring 26 and between the "first poppet" 17 and a separate independent spring retainer at washer 24 and nuts 25)" as recited.

Regarding claim 11, in Buenik, "the seal (33) includes a first face (the outer peripheral surface of seal 33 and the downwardly facing surface cooperating with recess 31) that seats within a recessed seat (31) within the first poppet (30)" as recited.

Regarding claim 12, in Buenik, "the seal (33) includes a seating surface (the upper surface cooperating with the shoulder 26) for sealable seating against the internal shoulder (26) when the first poppet (30) is biased against the shoulder (26)" as recited.

Regarding claim 13, in Buenik, "the seal (33) includes a sealing shoulder (at the upper surface cooperating with annuli 29 of valve 28) for sealable seating against the second poppet (28) when the second poppet (28) is biased into the aperture by the second spring" as recited.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buenik in view of Inada et al.

The patent to Buenik, as noted above, discloses all the claimed features with the exception of having the "second spring positioned within the first poppet".

The patent to Inada et al. discloses that it is known in the art to employ, in a bi-directional check valve device a "first valve" 20, including a guide sleeve 24, which "first valve" 20 carries a complete "second valve" at valve head 31 which seats against seal 20 at 23, and a biasing spring 34, "positioned within the first (20, 24) poppet" for the purpose of, as compared to the construction of Buenik, reducing the overall length of the bi-directional check valve device thus reducing the space occupied by the device in its assembled position.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Buenik an extended guide surface from the downstream side of the first valve 30, in which is positioned the "second" spring for the second valve 28 for the purpose of, as compared to the construction of Buenik, reducing the overall length of the bi-directional check valve device thus reducing the space occupied by the device in its assembled position as recognized by Inada et al.

A device envisioned by the above combination would perform "a method for selectively topping an inflatable device (a tire, Buenik) as well as allowing excess pressure to relieve from the inflatable device, the method comprising: selectively compressing a first spring (35, Buenik) within a valve body (22, Buenik) to allow fluid flow over a seal (33, Buenik) and around a first poppet (30, Buenik) when topping of the inflatable device (tire, Buenik) is desired as the first poppet (30, Buenik) with the seal (33, Buenik) sealably seated therein is unseated from against an internal shoulder (26, Buenik) within the valve body (22, Buenik); and selectively compressing a second



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spring (37, Buenik) positioned within the first poppet (as taught by Inada et al.) when excess pressure exists within the inflatable device (tire, Buenik) thereby pressure relieving the inflatable device by allowing fluid flow between the seal (33, Buenik) and a second poppet (28, Buenik) as the second poppet (28, Buenik) is unseated from against the seal (33)" as recited.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Rivell whose telephone number is (703) 308-2599. The examiner can normally be reached on Mon.-Thur. from 6:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherbel can be reached on (703) 308-1272. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**John Rivell**  
**Primary Examiner**  
**Art Unit 3753**

j.r.